

# STEVAL-MKI031V1

### Multi sensor application (MuSA) board platform

Data brief

### Features

- Multi pole connector for platform expansion using sensor-specific modules
- 4 buttons for menu navigation
- 128 x 64 pixel, black and white LCD
- Piezoelectric buzzer
- MicroSD socket for data logging applications
- RoHS compliant

## Description

The STEVAL-MKI031V1 MuSA (multi sensor application board) platform is intended to demonstrate the performance and possible uses of MEMS devices.

The MuSA platform is based on an ST7 8-bit microcontroller, which manages the output signals from the MEMS accelerometer.

The platform comes with the LIS331DLH preinstalled on the board, but can support any digitaloutput accelerometer from ST in 3x3 or 3x5 mm packages connected to the microcontroller through an SPI interface, as well as the LIS344ALH analog-output accelerometer.

The MuSA platform features four buttons for navigating the menus. A mini-USB connector is available to exchange data with a PC, depending on the specific application, and also recharges the internal Li-ion battery. The battery is capable of providing power for approximately 7 hours of operation.

A USB interface is available for firmware upgrades (DFU), and for exchanging data with user-developed software running on a host PC.



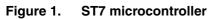
September 2010

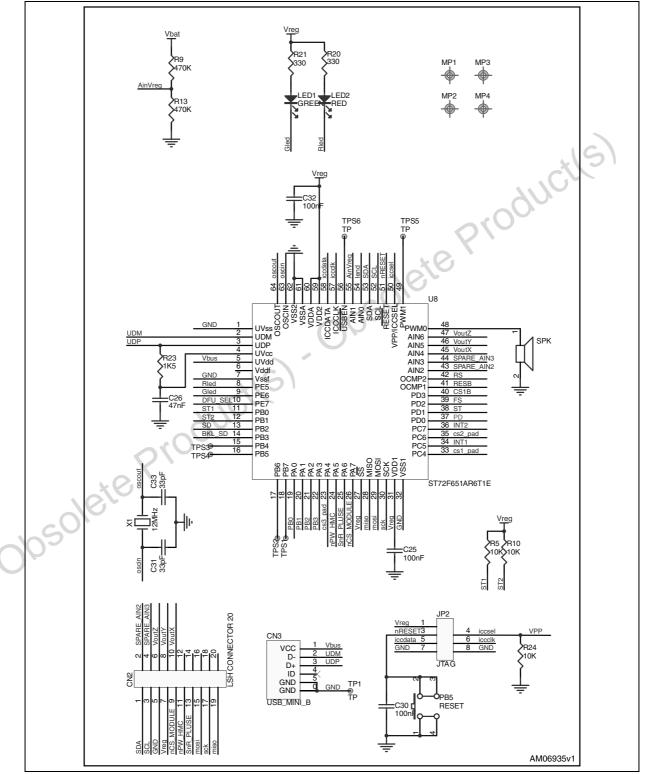
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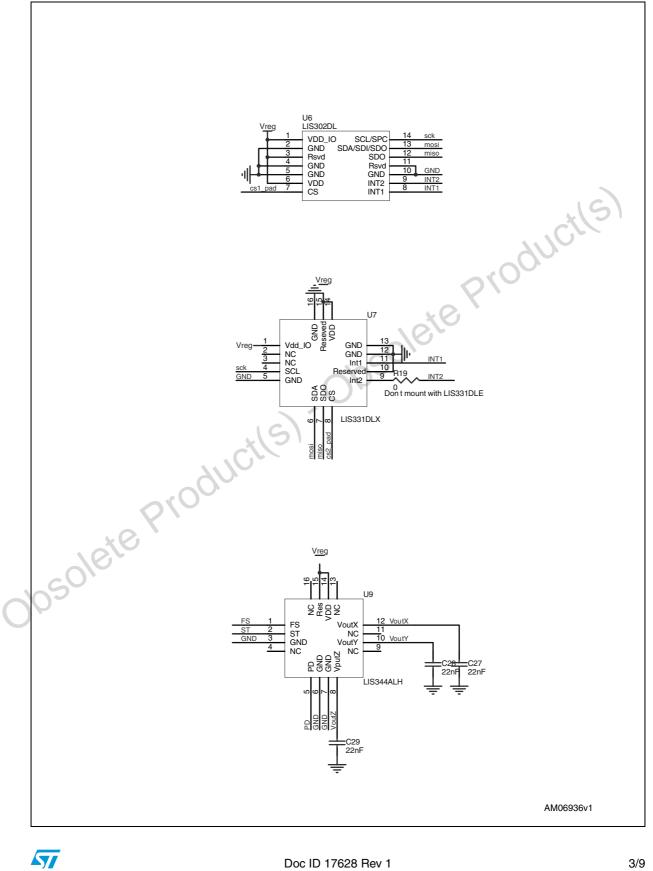
# **1** Schematic diagrams



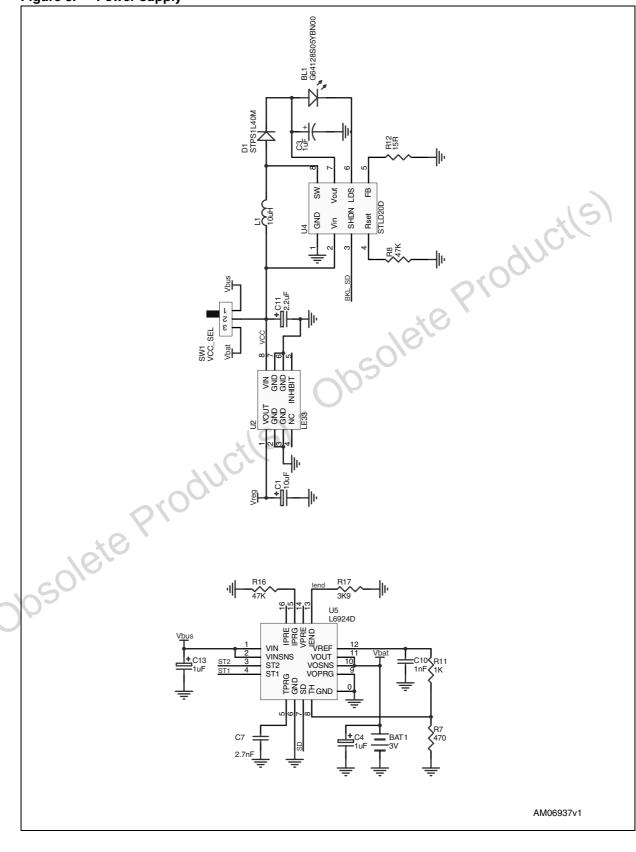




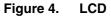
#### Figure 2. Accelerometers



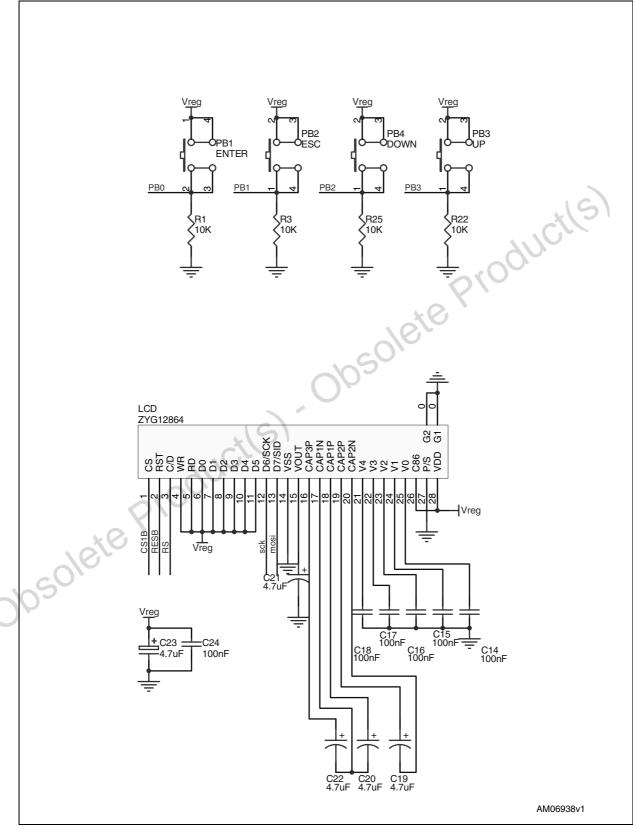
### Figure 3. Power supply



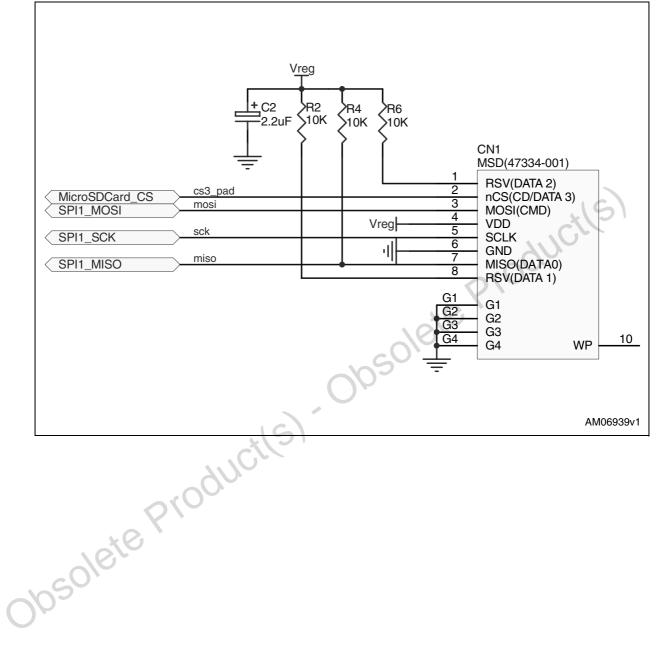




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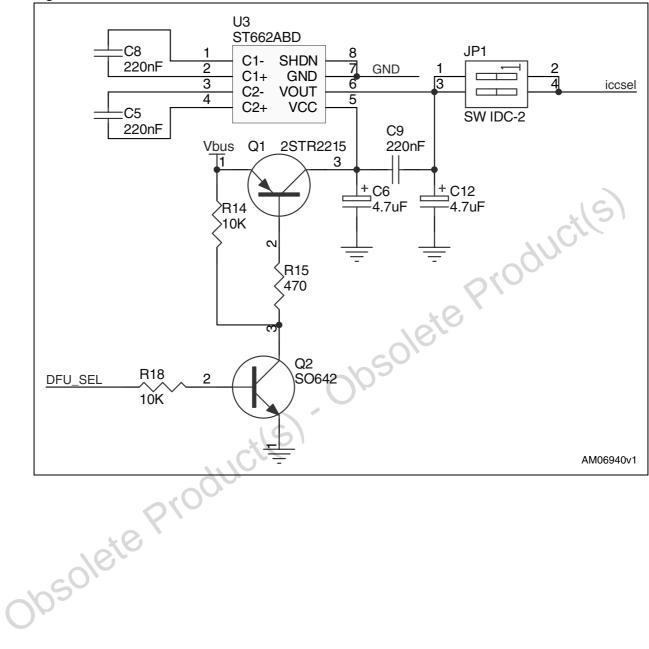
#### Figure 5. MicroSD





#### STEVAL-MKI031V1

#### Figure 6. DFU





# 2 Revision history

Table 1.Document revision history

Date	Revision	Changes
16-Sep-2010	1	Initial release.

obsolete Product(s). Obsolete Product(s)

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